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ABSTRACT

After a brief introduction to the educational benefits of simulation/games, the use of two games in two undergraduate political science courses is described. For a game to be valuable from an educational point of view, it must be analytic in nature and similar in structural elements to those of the real world. The simulation experience motivates the students and gets them actively thinking and acting on intellectual questions presented by the game, develops an understanding of a process, and changes the role of the teacher from authority figure to a critic-observer. In a beginning level American government course "Simulated Society" (SIMSOC) is used to examine questions related to nation building, such as how will society be organized, who will make the decisions, and what type of institutions are best. In an advanced course on the legislative process, the simulation "Decision Making by Congressional Committees" is used to examine factors involved in a bargaining situation when Congress is considering various legislation. In both cases the most important learning occurs in the debriefing phase of the games. (Author/DE)

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Preliminary Draft

Simulation: The Motivation Connection

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Games and Simulations - An Introduction

Games and Simulation are two inter-related but different approaches to teaching and conducting research about the political world. Simulation and games are not new techniques, their use probably dates to pre-historic times; Chess is an example of popular and ancient war game. In more modern times we know that both Japan and Germany used political games as part of their preparation for the Second World War. (Goldhamer, 1959:73) The early development of political games in the United States took place at the RAND corporation in 1954, this work was an outgrowth of their earlier work with war games. Northwestern and M.I.T. were two universities which took an early lead in developing political simulation games in the 1950's; since that time, the use of games has proliferated. As Abt (1970:7) observes in a different context "whatever the origin, the motive was no doubt each individuals' persistent hunger for experience beyond his own." This is also a motivation for using simulation games in the classroom, to create a situation or process for the students to study and analyze which is beyond their normal range of experience.

In its broadest sense, a simulation is a model-whether symbolic or physical-of something else. For social science simulation refers to the construction and manipulation of an operating model, which represents, physically or symbolically, all or part of some social process. (Dawson, 1962:3) All games are simulations but all simulations are not games (Abt:9). Games are structured situations in which independent decision makers attempt to reach their objectives within the game; some games are designed to encourage cooperation and mutual benefit. What is necessary for a game to be of value from an educational point of view is that the game be analytic in nature and that the structural elements of the game be similar to those of the real world. The important thing is that the model operates like the system being studied.

Simulations that are not games tend to be more formal in that the rules for including variables are more demanding, all analogies most be defended, relationships between variables must be clearly spelled out, and their theoretical base must be firmer. Games tend to lack the rigor of more developed simulations, there is more flexability and less need for analytical consistency and strictness. Games can be seen as a "pre-simulation"that are used to learn and teach about the basic outline of the behavior under investigation as well as filling in gaps in a model. The gaming approach to building models has been called "messing around" in science. (Raser, 1969:30-32)

Business and the military have used games quite extensively with a great deal of success in their training programs. Abt (1970:13) suggests that this success is because they tend to be out-put oriented dealing with concrete operations or solving specific types of problems. With less specific and more abstract academic situations, the results and impact of the use of classroom games is not clear. One review of several games came to the conclusion that classroom simulation does produce more motivation and interest but there is no significant difference in learning, retention, critical thinking or attitude change (Cherryholmes 1966:7). On the other hand Boocock (1966:8-17) reports that playing games does change attitudes. Maidment and Bronstein (1973:24) contend that instructional simulation can teach facts and principles but it is not superior to traditional techniques.

The advocates of classroom gaming tend to emphasize advantages other than transmission of objective knowledge. They contend that a simulation experience provides a setting in which students can learn a good deal about the dynamics of political decision making, especially the pressures, incentives and the moral and intellectual problems that decision maker must consider when a policy is being formulated. This learning process also changes the role of the teacher

from an authority figure with the "answers" to a critic/observer. Finally the simulation experience motivates the students and gets them actively thinking and acting on intellectual questions presented by the game and hopefully the real world.

Two Examples of Classroom Games

A basic course: American Government

The teaching of an introductory course in American Government can be both frustrating and rewarding. One of the more frustrating elements is the detached, somewhat complacent attitude sometimes encountered when facing a group of freshmen and sophomores who feel they know all there is to know or want to know about American Government because they have lived here for 18 years; they read Time once a month and they had a high school course in U.S. History. A second frustrating element is the inability of the students to understand and relate to problems which they have not experienced; especially the problems faced in the early stages of our political system's development. Most of the students tend to take our political system as it now operates more or less for granted because they have no knowledge of any other way to deal with the problems all societies face.

In an attempt to overcome some of these problems I decided to use a simulation exercise as part of my introductory American Government course. Since I am more concerned with macro-questions, especially those related to nation building, such as how will society be organized, who will make the decisions, and what type of institutions are best. I do not use a simulation dealing with a given institution or practice as now exists in the United States. Rather I use SIMSOC (Gamson, 1972a) - SIMulated SOCiety - which seems to be the simulation exercise most suitable for my purposes. The game is relatively unstructured which is ideal because this forces the students to cope with the big questions, as well

as the nuts and bolts of running a political system. The game has four regions ranging from affluent to impoverished. Some group leaders are designated before the run starts, but the groups composition and goals are not defined; there is no governmental system. The rules are minimal but some natural laws are included such as if people do not eat they will die and if resources are used in an unwise way society will suffer. Given this unstructured situation, students are forced to make decisions on how to organize their society and in this way cope with some of the basic questions of nation building. A secondary reason for choosing SIMSOC was availability and quality of the documentation on this game.

Since the game was initially designed to be used as a lab in a social psychology course (Gamson, 1972b:54) a few problems had to be confronted to make it more relevant to an introductory American Government course. In the first place a series of introductory lectures are given on our early history including the Articles of Confederation and The Constitution. The purpose in doing this before the simulation run is to introduce the students to some of the basic political problems all societies must cope with and the American responses to these problems. In addition to getting the students oriented to the problems of the polity, this series of lectures also provides a time for the class membership to stabilize. A foreign relations element has also been added by including an ambassador as a defined role in this game. This ambassador may serve his society in any way it chooses; typically this means he represents his society in any dealings it has with other SIMSOC that are in session at the same time. If only one run is going at any one time a student from outside the class may act as a representative of some mytical society. The introductory lectures and foreign affairs element are the only changes that have been made to make the game more government relevant.

In all instances the game has run smoothly with no major problems. The students have some problems getting oriented at first but rapidly become familiar with the natural rules and create rules for the society they create. As soon as the students realize that there are problems; a deprived region, unemployment and a general societal colapse ad-hoc solutions to these problems are developed. Soon the society attempts to institutionalize and routinize a set of relationships to provide a governmental system. In all runs to date, these attempts have failed. In all cases a small group of participants has taken over the power positions in the society regardless of the attempts to create a set of institutions that would result in a government with widespread grass roots participation. In some cases this elite take-over was a well-planned coup; in other cases it "just happened." The introduction of the ambassador from another society has resulted in a strange situation. The society attempts to conduct its foreign policy in a democratic way even though in the area of domestic affairs elite control tends to be the norm. I do not suggest that this pattern would always develop, indeed each run tends to evolve in its own way with its own internal logic. The very richness and diversity of the various runs contributes to the educational value of the game.

The game seems to be especially good in raising questions dealing with behavioral concepts as well as the nature of society and political systems. In the simulation, my experience has been that institutions like American Institutions do not evolve; so it is of little value in teaching about our system as it presently exists. The most important part of the game is not the run but the discussion that takes place after the run is finished. This is where I feel the real learning takes place; the instructor can lead the students in examining various ideas and situations that can be illustrated in the context of the run.

While the run is in progress the students and the instructor keep a detailed log of events and interpretation of those events as they develop. This log becomes an important tool in the post run de-briefing. It serves as a source of questions and illustrations of various ideas. During the initial de-briefing, which usually lasts one or two class periods, the students are encouraged to sit in the same group they were in during the run; this helps preserve the group identity and often the post-run cohesion of the groups becomes a relevant topic in the de-briefing.

Within limits the simulation also provides a mechanism for hypothesis testing or creating a situation which will illustrate a point which will be raised at a later time. In one run I made, women were the initial heads of all identified groups; by the end of the run men had assumed all but one of the leadership positions. At a latter point this fact was used to start a discussion of the socialization process and it later came up in a discussion of cultural norms. The events in the run provide a common experience for all students in the class and the raw material for discussion for the entire semester. In effect the first day or so after the run is the most intensive period of de-briefing but the process continues for the entire term. In an attempt to make the simulation as real as possible no grades were given for participation in the simulation, but it is possible to use the simulation exercise in a testing situation. I use the book The Irony of Democracy (Dye and Zeigler, 1972) as the text for the course and frequently I will ask the students to evaluate the thesis of the book on the basis of their simulation experience.

I have found this simulation exercise to be very worthwhile from an academic point of view but there are also other benefits. The class seems to be much more relaxed and open than a conventional class. Students seem to get very involved not only in the simulation but in the bigger problems presented. Students report that they dream about the simulation run and alternate courses of action that they could have taken long after the run is finished.

An advanced course: Legislative Process

A second situation in which I used a classroom simulation was in teaching an advanced course on the Legislative Process. With this course there was no need to use a simulation to motivate students or to get them thinking about the course. In this instance I wanted a simulation which would help the students develope a better understanding of a specific part of the American Governmental system as it now operates. The simulation I chose was "Decision-Making by Congressional Committees"(Stitelman and Coplin 1969) this game was chosen because it deals with a specific and important part of the legislative process.

This game is much more specific than SIMSOC in that a series of specific conflict situations are built into the game by environment as created by the rules and the roles of the various players. Each student acts as a member of a Conference Committee with a set of roles; the conference committee must make a series of decisions about two versions of an anti-crime bill. While dealing with the bill, individuals must cope with various factors that become relevant as a result of their individual role definition as well as the substance of the bill. These factors include the general political environment, the fate of previous legislation, the individuals voting record, party membership, constituency and his electoral vulnerability. Time is also an important factor because a time limit is included in the instructions to the participants. The primary motivation for decision making in this game is the desire to be re-elected

Running this game was a useful exercise for the students because it gave them a "participants" feeling for what happens in a bargaining situation when Congress is considering various legislation. The restraints imposed by the rules of the game and the role definition for each player are very real. During the post run discussion it is not uncommon for students to say that they really did not think the position they took was correct but they had no choice given the role they were playing. Students who had participated in SIMSOC runs in

another class were quick to point out the differences, especially the restraints imposed in this game and the frustration they felt because of the restraints. Many students felt that the restraints imposed by the rules and roles were not very realistic. This point proved to be a very good topic of discussion and a good way to focus a great deal of material on Congressional behavior. In fact quite a bit of time was spent on different ways to analyze Congressional behavior generally and the nature and application of role theory specifically. This simulation served its purpose of introducing students to workings of a Conference committee in the U.S. Congress.

In an upper division course it may be more beneficial for all concerned if the students design and run a simulation dealing with some topic in the course. This would put the students in the position of having to state in fairly explicit terms the theories of behavior they are using, what variables and actors are relevent and what type inter relationships they expect to develop. When this game is run, the students would then be testing their hypothesis and their model rather than ones imposed by someone else. In this situation the role of the teacher is much greater in helping the students design the game and later in the post-game discussion but from an educational point of view it seems that the extra time and energy required is a good investment.

Conclusion

Simulation games may play an important role in undergraduate education. It is important that the strengths and weaknesses of simulation games be understood by the teacher considering their use. When the teachers objectives are in the area of motivation, stimulating interest and developing an understanding of a process, it seems that games are an appropriate teaching device. If the teacher wants to teach facts and principles, games probably should not be used because they cost too much in terms of time and effort and in some cases money.

If there is not a good match between the teachers objectives and objectives of the game it is better to use no game than suffer the consequences of a mismatch. If there is a good match of objectives the use of a well designed game can be a very worthwhile educational experience for all concerned.

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